

REMARKS

Claims 1-11 are pending. Claims 1-3 and 9-11 are amended. Claim 1 is amended to correct an antecedent basis matter and to improve correspondence between claim terms and the Detailed Description. Claims 2, 3, 9-11 are amended to correct typographical errors.

In the present Office Action, Claims 1-11 are rejected under 35 USC § 102(b) as being anticipated by U.S. Patent No. 4,294,205, issued to *Iiyama et al.* Applicant respectfully traverses this rejection as follows.

First, the cited reference discloses a carburetor for a multi-cylinder internal combustion engine which has in addition to a main intake passage, a sub intake passage for supplying a comparatively rich mixture to a sub-combustion chamber disposed in the cylinder head adjacent the main combustion chamber of each cylinder of the multi-cylinder combustion engine. In contrast, the present invention is not a carburetor. It is rather an air intake system for providing improved air flow into an internal combustion engine. The basic difference between the purpose of the above cited reference and the present invention will become clearer as the structural differences are pointed out in the following remarks.

Second, the Examiner has asserted that the entire text of independent Claim 1 is disclosed by the cited reference. However, a search of the cited reference for some teaching or disclosure of everything recited in Applicant's Claim 1 reveals the following. The carburetor of the cited reference has no forward disposed air inlet. In contrast, the present invention requires a forward disposed air inlet in which the air inlet portion of the air intake system is forwardly disposed (as described in lines 15-17 of page 6 of the Detailed Description), i.e., it is facing in the direction of travel of the vehicle powered by the internal combustion engine.

Third, the limitation in the third subparagraph of Applicant's Claim 1 as amended, "wherein the distribution of air to all parts of the air intake openings in the intake manifold is substantially

uniform" is not met in the cited reference. In the cited reference, the carburetor has two passages for air through it. These two passages have a very different cross-sectional area and thus do not provide a substantially uniform distribution of air to all parts of the intake manifold. See, in particular Figures 3-6 of the cited reference, showing the larger air passage and throttle valve 61 and the smaller air passage and throttle valve 62 as described at Col. 7, lines 17-20 and Col. 6, lines 20-25 that identify "a sub-intake passage 54 of a diameter smaller than that of the primary [52] and secondary [53] passages is disposed at one side of the primary main intake passage 52."

Fourth, the carburetor of the cited reference has a fundamentally different cross-sectional profile throughout the full length of the air passages in the air intake system. The carburetor of the cited reference includes a Venturi profile. In a Venturi, the cross-sectional area of the air intake diminishes for a first portion of the air path until it reaches a Venturi section. Immediately following the Venturi, the cross-sectional area of the passage expands to create a low pressure region within the air intake system for extracting liquid fuel from the reservoir in the carburetor body through a tube outlet placed in the Venturi. By contrast, the present invention, as clearly pointed out in the last subparagraph of Claim 1 as amended ("wherein each passage in the air intake has an ever decreasing cross-sectional area along the direction of air flow") there is no Venturi section in the Applicant's air intake system and no introduction of liquid fuel in an intermediate portion of the air intake system as are required in the carburetor of the cited reference. Moreover, the carburetor Venturi of the cited reference teaches an operating principal entirely different from that employed in the present invention as recited in Claim 1.

As shown in the foregoing, the cited reference contains no teaching or disclosure of a "forwardly disposed air inlet" that, as described in the Detailed Description as appearing on page 6, lines 17 of the present application "faces directly into the incoming air flow." Further, the cited reference does not meet the limitation of Applicant's Claim 1 requiring a substantially uniform air flow to all parts of the intake openings in the intake manifold. Moreover, the cited reference contains no teaching or disclosure of "an ever decreasing cross-sectional area along the direction of air flow," as clearly

described on lines 24 and 25 of page 6 of the present application. Finally, the air intake system of Applicant's claimed invention operates according to a different principle than the cited reference.

Therefor, the cited reference to *Iiyama* fails to anticipate Claim 1 as amended. Claims 2-11 are also allowable because they are dependant from Claim 1 and thus contain all of the limitations of Claim 1. Applicant respectfully requests the withdrawal of this rejection and full allowance of all of the claims 1-11.

The Office Action was mailed in the present case on November 5, 2004, making a response due on or before February 5, 2005. Since this response is being submitted in a timely manner, no additional fee is thought to be due at this time. If any additional fee is due for the continued prosecution of this application, please charge the same to Applicant's Deposit Account No. 50-2555 (Whitaker, Chalk, Swindle & Sawyer, LLP).

Please charge any additional fees which may be due for the continued prosecution of this application to Applicant's Deposit Account No. 50-2555 (Whitaker, Chalk, Swindle & Sawyer, LLP).

Respectfully submitted,



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